

Patent Application
Attorney Docket No.: 28040-1

AMENDMENT TO THE CLAIMS

- 1 1. (Currently Amended) An equine dental
2 apparatus for floating the teeth of horses comprising:
3 a tool body;
4 a drive shaft disposed along a first axis
5 inside of the tool body, wherein the drive shaft
6 includes a first end configured for attachment to a
7 drive mechanism and a second end opposite the first
8 end; and
9 a grinding member connected to the second end
10 and partially housed in the tool body, wherein when the
11 tool body is held in a fixed position with the drive
12 shaft oriented horizontally, the grinding member is
13 capable of pivoting upward through a first range of
14 angles relative to the drive shaft and is further
15 capable of pivoting downward through a second range of
16 angles relative to the drive shaft.
- 1 2. (New) The equine dental apparatus of claim 1
2 wherein the tool body includes a pivot joint having a pivot
3 axis, and further wherein the grinding member pivots through
4 the range of angles about the pivot axis.
- 1 3. (New) The equine dental apparatus of claim 2
2 wherein the pivot axis is perpendicular to the first axis.
- 1 4. (New) The equine dental apparatus of claim 2
2 wherein the pivot axis intersects the first axis.
- 1 5. (New) The equine dental apparatus of claim 2
2 wherein the drive shaft includes a first section disposed to
3 rotate about the first axis, a second section disposed to

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4 rotate about a second axis, and a ball and socket joint
5 disposed to couple the second section to the first section,
6 wherein the ball and socket joint is disposed inside of the
7 pivot joint.

1 6. (New) The equine dental apparatus of claim 2
2 wherein the apparatus further comprises a vacuum port
3 disposed to suction enamel dust produced during the floating
4 of teeth, wherein the vacuum port passes through the pivot
5 joint.

1 7. (New) The equine dental apparatus of claim 2
2 wherein the apparatus further comprises a source of
3 illumination disposed to illuminate the teeth being floated,
4 wherein the source of illumination passes through the pivot
5 joint.

1 8. (New) The equine dental apparatus of claim 7
2 wherein the source of illumination includes a cable, wherein
3 the cable passes through the pivot joint.

1 9. (New) The equine dental apparatus of claim 8
2 wherein the cable is a fiber optic cable.

1 10. (New) The equine dental apparatus of claim 1
2 wherein the apparatus further comprising a vacuum port
3 disposed to suction enamel dust produced during the floating
4 of teeth, wherein a portion of the vacuum port is disposed
5 inside of the tool body.

1 11. (New) The equine dental apparatus of claim 1
2 wherein the apparatus further comprising a source of
3 illumination disposed to illuminate the teeth being floated,

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4 wherein the source of illumination is at least partially
5 disposed inside of the tool body.

1 12. (New) The equine dental apparatus of claim
2 11 wherein the source of illumination includes a cable,
3 wherein the cable is at least partially disposed inside of
4 the tool body.

1 13. (New) The equine dental apparatus of claim
2 12 wherein the cable is a fiber optic cable.

1 14. (New) The equine dental apparatus of claim 1
2 further comprising the drive mechanism.

1 15. (New) The equine dental apparatus of claim 1
2 wherein the apparatus is configured for attachment to an
3 external vacuum source, and further wherein the apparatus is
4 configured to provide vacuum suction from the external
5 vacuum source to the vicinity of the grinding member to
6 suction material produced during the floating of teeth.

1 16. (New) The equine dental apparatus of claim
2 15 further comprising the external vacuum source.

1 17. (New) The equine dental apparatus of claim 1
2 wherein the apparatus is configured for attachment to an
3 external light source, and further wherein the apparatus is
4 configured to provide light from the external light source
5 to the vicinity of the grinding member.

1 18. (New) The equine dental apparatus of claim
2 17 further comprising the external light source.

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1 19. (New) An equine dental apparatus for
2 floating the teeth of horses comprising:
3 a first drive shaft disposed along a first
4 axis and configured for attachment to a drive
5 mechanism;
6 a second drive shaft coupled to the first
7 drive shaft, wherein the second drive shaft pivots
8 relative to the first drive shaft about a second axis
9 different from the first axis, wherein the second axis
10 intersects the first axis; and
11 a grinding member attached to the second
12 drive shaft.

1 20. (New) The equine dental apparatus of claim
2 19 further comprising:
3 a first housing member, wherein the first drive
4 shaft is at least partially disposed inside of the first
5 housing member;
6 a second housing member, wherein the second drive
7 shaft is at least partially disposed inside of the second
8 housing member; and
9 a pivot joint connecting the second housing member
10 to the first housing member, wherein the pivot joint pivots
11 about the second axis to allow the second housing member to
12 pivot relative to the first housing member.

1 21. (New) The equine dental apparatus of claim
2 20 wherein the apparatus further comprises a vacuum
3 passageway disposed to suction enamel dust produced during
4 the floating of teeth, wherein the vacuum passageway passes
5 through the pivot joint.

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1 22. (New) The equine dental apparatus of claim
2 20 wherein the apparatus further comprises a source of
3 illumination disposed to illuminate the teeth being floated,
4 wherein the source of illumination passes through the pivot
5 joint.

1 23. (New) The equine dental apparatus of claim
2 22 wherein the source of illumination includes a cable,
3 wherein the cable passes through the pivot joint.

1 24. (New) The equine dental apparatus of claim
2 23 wherein the cable is a fiber optic cable.

1 25. (New) The equine dental apparatus of claim
2 20 wherein the apparatus further comprises a vacuum
3 passageway disposed to suction enamel dust produced during
4 the floating of teeth, wherein a portion of the vacuum
5 passageway is disposed inside of the first and second
6 housing members.

1 26. (New) The equine dental apparatus of claim
2 20 wherein the apparatus further comprises a source of
3 illumination disposed to illuminate the teeth being floated,
4 wherein the source of illumination is at least partially
5 disposed inside of the first and second housing members.

1 27. (New) The equine dental apparatus of claim
2 26 wherein the source of illumination includes a cable,
3 wherein the cable is at least partially disposed inside of
4 the first and second housing members.

1 28. (New) The equine dental apparatus of claim
2 27 wherein the cable is a fiber optic cable.

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1 29. (New) The equine dental apparatus of claim
2 19 wherein the apparatus is configured for attachment to an
3 external vacuum source, and further wherein the apparatus is
4 configured to provide vacuum suction from the external
5 vacuum source to the vicinity of the grinding member to
6 suction enamel dust produced during the floating of teeth.

1 30. (New) The equine dental apparatus of claim
2 29 further comprising the external vacuum source.

1 31. (New) The equine dental apparatus of claim
2 19 wherein the apparatus is configured for attachment to an
3 external light source, and further wherein the apparatus is
4 configured to provide light from the external light source
5 to the vicinity of the grinding member.

1 32. (New) The equine dental apparatus of claim
2 31 further comprising the external light source.

1 33. (New) The equine dental apparatus of claim
2 19 further comprising the drive mechanism.

1 34. (New) The equine dental apparatus of claim
2 19 wherein the second axis is perpendicular to the first
3 axis.

1 35. (New) An equine dental apparatus for
2 floating the teeth of horses comprising:
3 a drive shaft configured for attachment to a
4 drive mechanism, wherein the drive shaft includes a
5 first section disposed along a first axis and a second
6 section coupled to the first section, wherein the

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7 second section pivots relative to the first section
8 about a second axis different from the first axis,
9 wherein the second axis intersects the first axis; and
10 a grinding member attached to the second
11 section.

1 36. (New) The equine dental apparatus of claim
2 35 wherein the second axis is perpendicular to the first
3 axis.

1 37. (New) An equine dental apparatus for
2 floating the teeth of horses comprising:
3 a first tool body member;
4 a second tool body member;
5 a drive shaft having a first section at least
6 partially disposed inside of the first tool body member
7 and a second section at least partially disposed inside
8 of the second tool body member, wherein the second
9 section is coupled to the first section, and further
10 wherein the first section is disposed to rotate about a
11 first axis;
12 a grinding member connected to the second
13 section of the drive shaft and at least partially
14 disposed inside of the second tool body member; and
15 a pivot joint connecting the first tool body
16 member to the second tool body member, wherein when the
17 first tool body member is held in a fixed position such
18 that the first axis is horizontal, the second tool body
19 member is capable of pivoting upward through a first
20 range of angles relative to the first tool body member
21 and is further capable of pivoting downward through a
22 second range of angles relative to the first tool body
23 member.

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1 38. (New) The equine dental apparatus of claim
2 37 wherein the pivot joint further includes a ball and
3 socket joint disposed between the first tool body member and
4 the second tool body member.

1 39. (New) The equine dental apparatus of claim
2 38 wherein the ball and socket joint couples the second
3 section of the drive shaft to the first section of the drive
4 shaft.